Mortality descriptive

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Goal: Identify and explore mortality variables in the GHAP nutritional intervention trials.

rm(list=ls())  
library(ghap)  
library(knitr)  
library(ggplot2)  
library(dplyr)

##   
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':  
##   
## filter, lag

## The following objects are masked from 'package:base':  
##   
## intersect, setdiff, setequal, union

library(haven)

## Warning: package 'haven' was built under R version 3.4.3

setwd("U:/data")  
  
# Load data  
aga <- readRDS("akup.rds")  
bfzn <- readRDS("bfzn.rds")  
dvds <- readRDS("dvds.rds")   
eczn <- readRDS("eczn.rds")  
eu <- readRDS("eu.rds")  
gbsc <- readRDS("gbsc.rds")  
idose <- readRDS("ilnd.rds")   
idyad <- readRDS("ildm.rds")  
ilzn <- readRDS("lnsz.rds")  
jvit3 <- readRDS("jvt3.rds")  
jvit4 <- readRDS("jvt4.rds")  
lcni <- readRDS("lcn5.rds")  
probit <- readRDS("prbt.rds")  
sasfood <-readRDS("fspp.rds")  
tanzchild <- readRDS("tzc2.rds")  
# vita <- readRDS("")  
# vitb12 <- readRDS("vb12.rds")  
washbd <- readRDS("wsb.rds")  
washk <- readRDS("wsk.rds")  
znmort <- readRDS("zmrt.rds")  
zvit <- readRDS("zvit.rds")  
peruzn <- readRDS("pzn.rds")  
  
# Vaccine trial  
provide <- readRDS("prvd.rds")

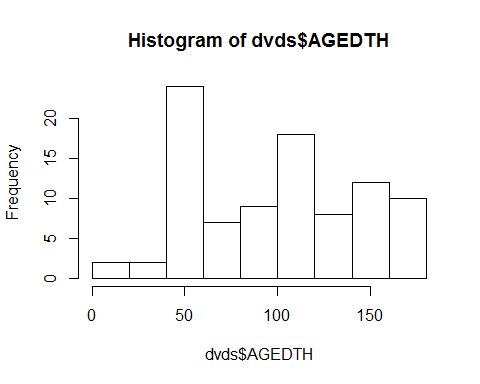
# According to kikm\_variables, the following studies have DEAD and AGEDTH as mortality variables   
 # DIVIDS, JIVITA, iDOSE, iDYAD, ZVITAMBO, TanzaniaChild2, PROVIDE  
  
# DIVIDS  
 table(dvds$DEAD)

##   
## 1   
## 92

summary(dvds$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 14.0 60.0 109.0 100.6 128.0 180.0 20496

hist(dvds$AGEDTH)



table(dvds$CAUSEDTH)

##   
## dehydration   
## 12   
## diarrhea and vomiting   
## 8   
## hypothermia   
## 1   
## loose motion   
## 7   
## no feeding   
## 10   
## not accepting milk and not passing stools/urine   
## 1   
## pneumonia   
## 32   
## unknown   
## 17

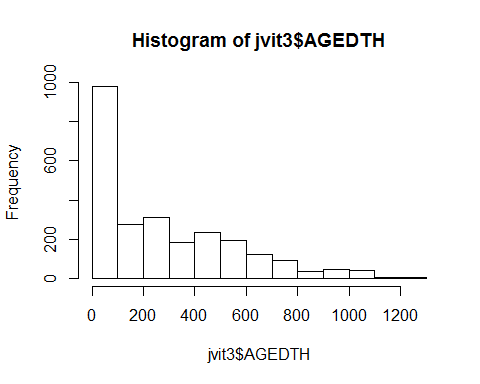
table(dvds$CAUSDTHC)

##   
## BLUISH DISCOLORATION OF ORAL MUCOSA   
## 9   
## BREATHLESSNESS/HURRIED BREATHING/REFUSAL OF FEEDS/DECREASED ACTIVITY   
## 4   
## COUGH   
## 9   
## COUGH/FEVER/RAPID BREATHING/SUBCOSTAL RESSION   
## 10   
## DROWSY/COLD HAND AND FEET/STOP SUCKING/LOUD CRY WITH HICCUPS   
## 1   
## FAST BREATHING/CHEST INDRAWING/NOT FEEDING WELL   
## 7   
## FEVER/RAPID BREATHING/CHEST INDRAWING/STOPPED SUCKLING MILK   
## 1   
## LESS FEEDING/VOMITING/STOPPED FEEDING   
## 10   
## LOOSE MOTIONS/REGUGITATING OF FEED   
## 7   
## MILD COUGH COLD/FEVER COUGH COLD/FAST BREATHING/SEVERE CHEST INDRAWING   
## 1   
## REFUSAL TO ACCEPT MILK/NOT PASSING STOOLS/NOT PASSING URINE   
## 1   
## STOOL/VOMITING AND DIARRHEA   
## 8   
## VOMITING   
## 8   
## VOMITING/LOOSE STOOLS   
## 12

# JiVitA-3  
 summary(jvit3$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 1.0 20.0 202.0 270.7 447.5 1226.0 130906

hist(jvit3$AGEDTH)



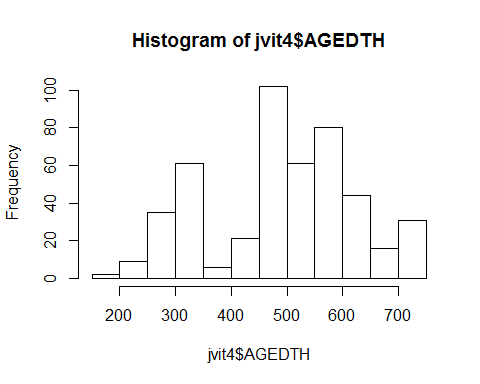
# JiVitA-4  
 table(jvit4$DEAD)

##   
## 0 1   
## 83682 468

summary(jvit4$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 187.0 405.0 500.0 492.6 582.5 735.0 83682

hist(jvit4$AGEDTH)



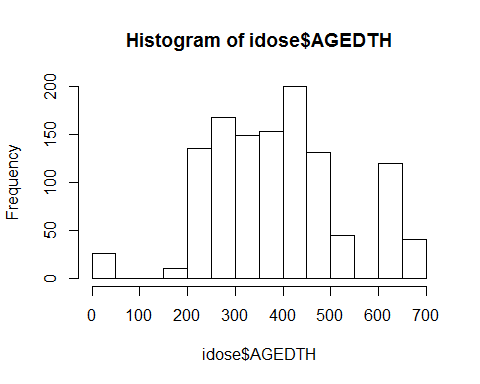
# iLiNS-DOSE  
 table(idose$DEAD)

##   
## 0 1   
## 82807 5588

summary(idose$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 7.0 285.0 385.0 386.4 459.0 667.0 87218

hist(idose$AGEDTH)



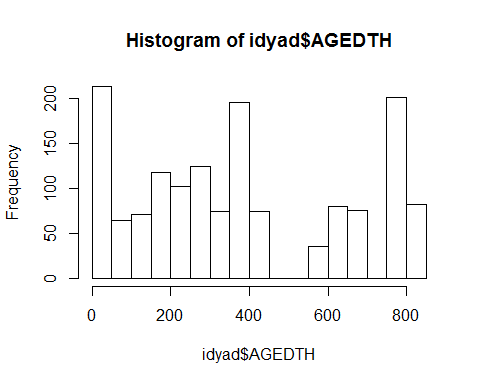
# iLiNS-DYAD  
 table(idyad$DEAD)

##   
## 0 1   
## 62154 1679

summary(idyad$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 0.4 162.5 336.4 372.5 601.5 824.1 62317

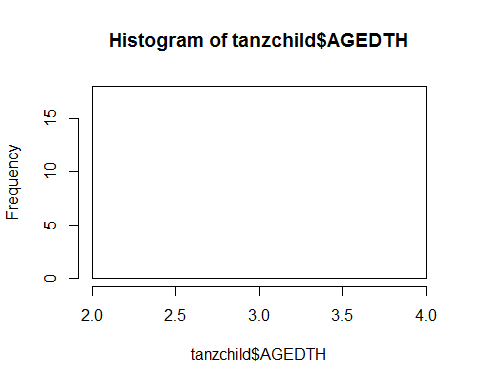
hist(idyad$AGEDTH)



# TanzaniaChild2  
 # Something weird here...  
 summary(tanzchild$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 3 3 3 3 3 3 32367

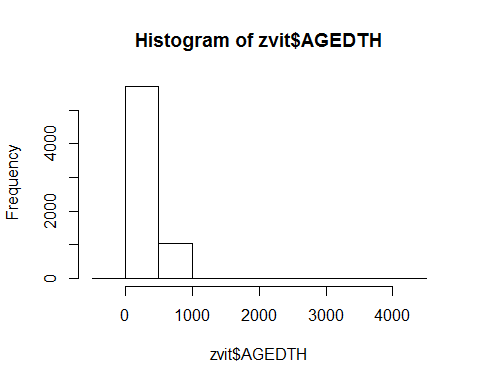
hist(tanzchild$AGEDTH)



# ZVITAMBO  
 summary(zvit$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## -8.0 100.0 222.0 276.1 408.0 4161.0 100763

hist(zvit$AGEDTH)



table(zvit$CAUSEDTH)

##   
## Accident or poisoning:BURNS   
## 30   
## Accident or poisoning:DROWNING   
## 11   
## Accident or poisoning:HEAD INJURY   
## 8   
## Accident or poisoning:INJURY   
## 12   
## Accident or poisoning:RTA   
## 3   
## Accident or poisoning:SNAKE BITE   
## 4   
## ARI /Pneumonia   
## 2291   
## ARI /Pneumonia/Chronic /Persistent diarrhoea   
## 61   
## ARI /Pneumonia/Chronic /Persistent diarrhoea/Malnutrition (m, k or m-k)   
## 113   
## ARI /Pneumonia/Diarrhoea /Gastroenteritis   
## 580   
## ARI /Pneumonia/Diarrhoea /Gastroenteritis/Accident or poisoning:MUTI POISONING   
## 8   
## ARI /Pneumonia/Diarrhoea /Gastroenteritis/Malaria   
## 8   
## ARI /Pneumonia/Diarrhoea /Gastroenteritis/Malaria/Malnutrition (m, k or m-k)   
## 13   
## ARI /Pneumonia/Diarrhoea /Gastroenteritis/Malnutrition (m, k or m-k)   
## 561   
## ARI /Pneumonia/Diarrhoea /Gastroenteritis/Meningitis   
## 16   
## ARI /Pneumonia/Diarrhoea /Gastroenteritis/Other specific infection/Other:NEC:CONG HEART DIS   
## 5   
## ARI /Pneumonia/Dysentery   
## 43   
## ARI /Pneumonia/Dysentery/Meningitis   
## 19   
## ARI /Pneumonia/Malaria   
## 6   
## ARI /Pneumonia/Malnutrition (m, k or m-k)   
## 776   
## ARI /Pneumonia/Malnutrition (m, k or m-k)/Other:CEREBRAL PALSY   
## 17   
## ARI /Pneumonia/Malnutrition (m, k or m-k)/Other:CLEFT PALATE   
## 3   
## ARI /Pneumonia/Meningitis   
## 95   
## ARI /Pneumonia/Meningitis/Malnutrition (m, k or m-k)   
## 4   
## ARI /Pneumonia/Meningitis/Non-specific /generalised sepsis   
## 3   
## ARI /Pneumonia/Meningitis/Other:CP   
## 9   
## ARI /Pneumonia/Non-specific /generalised sepsis   
## 35   
## ARI /Pneumonia/Non-specific /generalised sepsis/Other specific infection:SKIN   
## 2   
## ARI /Pneumonia/Non-specific /generalised sepsis/Other specific infection:SKIN ABSCESSES   
## 7   
## ARI /Pneumonia/Other specific infection/Malnutrition (m, k or m-k):SKIN ABSCESS   
## 3   
## ARI /Pneumonia/Other specific infection:CELLULITIS   
## 7   
## ARI /Pneumonia/Other specific infection:SEPTICAEMIA   
## 4   
## ARI /Pneumonia/Other specific infection:SK1N   
## 3   
## ARI /Pneumonia/Other specific infection:SKIN   
## 4   
## ARI /Pneumonia/Other specific infection:VARICELLA DISS   
## 4   
## ARI /Pneumonia/Other:ASPIRATION   
## 4   
## ARI /Pneumonia/Other:BLEEDING   
## 8   
## ARI /Pneumonia/Other:CCF   
## 20   
## ARI /Pneumonia/Other:CONG HEART   
## 12   
## ARI /Pneumonia/Other:CP   
## 8   
## ARI /Pneumonia/Other:DOWNS SYNDROME   
## 7   
## ARI /Pneumonia/Other:ENCEPHALOPATHY   
## 6   
## ARI /Pneumonia/Other:PDA AND RVH   
## 3   
## ARI /Pneumonia/Tuberculosis   
## 28   
## ARI /Pneumonia/Tuberculosis/Diarrhoea /Gastroenteritis   
## 11   
## ARI /Pneumonia/Tuberculosis/Diarrhoea /Gastroenteritis/Malnutrition (m, k or m-k)   
## 7   
## ARI /Pneumonia/Tuberculosis/Dysentery   
## 17   
## ARI /Pneumonia/Tuberculosis/Malnutrition (m, k or m-k)   
## 25   
## Chronic /Persistent diarrhoea   
## 7   
## Chronic /Persistent diarrhoea/Malnutrition (m, k or m-k)   
## 134   
## Chronic /Persistent diarrhoea/Other specific infection/Malnutrition (m, k or m-k):SKIN   
## 8   
## Chronic /Persistent diarrhoea/Other specific infection/Malnutrition (m, k or m-k):UTI   
## 23   
## Chronic /Persistent diarrhoea/Other:CONGENITAL HT   
## 9   
## Diarrhoea /Gastroenteritis   
## 319   
## Diarrhoea /Gastroenteritis/Chronic /Persistent diarrhoea/Malnutrition (m, k or m-k)   
## 7   
## Diarrhoea /Gastroenteritis/Malaria   
## 6   
## Diarrhoea /Gastroenteritis/Malaria/Malnutrition (m, k or m-k)   
## 10   
## Diarrhoea /Gastroenteritis/Malnutrition (m, k or m-k)   
## 185   
## Diarrhoea /Gastroenteritis/Malnutrition (m, k or m-k)/Other:TRISOMY 21 CCF   
## 13   
## Diarrhoea /Gastroenteritis/Meningitis/Malnutrition (m, k or m-k)   
## 7   
## Diarrhoea /Gastroenteritis/Other specific infection/Malnutrition (m, k or m-k):UT1   
## 13   
## Diarrhoea /Gastroenteritis/Other specific infection:CHICKEN POX   
## 9   
## Diarrhoea /Gastroenteritis/Other:FITS CAUSE   
## 13   
## Diarrhoea /Gastroenteritis/Other:HYDROCEPHALUS   
## 6   
## Dysentery   
## 38   
## Dysentery/Malnutrition (m, k or m-k)   
## 44   
## Malnutrition (m, k or m-k)/Other:CCF   
## 16   
## Meningitis   
## 118   
## Meningitis/Malaria   
## 3   
## Meningitis/Malnutrition (m, k or m-k)   
## 33   
## Meningitis/Non-specific /generalised sepsis/Other:KERNICTERUS   
## 2   
## Non-specific /generalised sepsis   
## 39   
## Non-specific /generalised sepsis/Malnutrition (m, k or m-k)   
## 25   
## Non-specific /generalised sepsis/Other specific infection/Other:NEONATALSEPSIS:KERNICTERUS   
## 4   
## Non-specific /generalised sepsis/Other specific infection:OSTEOMYELITIS   
## 2   
## Non-specific /generalised sepsis/Other:CONGENITAL   
## 2   
## Non-specific /generalised sepsis/Other:DBSTRUCTED GUT   
## 2   
## Non-specific /generalised sepsis/Other:HYPOTHEMIA   
## 7   
## Non-specific /generalised sepsis/Other:HYPOTHERMIA   
## 5   
## Non-specific /generalised sepsis/Other:JAUNDICE   
## 8   
## Non-specific /generalised sepsis/Other:KERNICTERUS   
## 3   
## Non-specific /generalised sepsis/Other:POLYCYTHAEMIA   
## 3   
## Non-specific /generalised sepsis/Other:TRISOMY 18   
## 3   
## Other specific infection/Accident or poisoning:CELLULITIS:RTA   
## 6   
## Other specific infection/Other:VIRAL ENCEPHAL:PATHY:CEREBRAL PALSY   
## 14   
## Other specific infection:SKIN   
## 4   
## Other:CCF   
## 16   
## Other:CIRRHOSIS   
## 5   
## Other:CONG HEART DIS   
## 4   
## Other:HEPATITIS   
## 4   
## Other:HYPERLIPIDAEMI   
## 6   
## Other:HYPOTHERMIA   
## 1   
## Other:IMPERF ANUS   
## 2   
## Other:MECONIUM ASP   
## 3   
## Other:POST PDA OP   
## 7   
## Other:POST:ANAESTHETIC   
## 6   
## Other:RDS 1UGR   
## 1   
## Other:RESPIRATORY   
## 1   
## Other:SIDS   
## 6   
## Tuberculosis   
## 26   
## Tuberculosis/Diarrhoea /Gastroenteritis   
## 33   
## Tuberculosis/Diarrhoea /Gastroenteritis/Malnutrition (m, k or m-k)   
## 30   
## Tuberculosis/Malnutrition (m, k or m-k)   
## 22   
## Tuberculosis/Other specific infection/Malnutrition (m, k or m-k):CELLULITIS   
## 5   
## Tuberculosis/Other specific infection:TBPERICARDITIS   
## 3   
## Uncertain   
## 756   
## Uncertain/ARI /Pneumonia   
## 4   
## Uncertain/ARI /Pneumonia/Diarrhoea /Gastroenteritis   
## 14   
## Uncertain/ARI /Pneumonia/Other:SIDS   
## 5   
## Uncertain/Malnutrition (m, k or m-k)   
## 62   
## Uncertain/Other:FITS ? CAUSE   
## 5   
## Uncertain/Other:HYDROCEPHALUS   
## 6   
## Uncertain/Other:HYPOTHERMIA   
## 1   
## Uncertain/Other:IUGR   
## 1   
## Uncertain/Other:S1DS   
## 3   
## Uncertain/Other:SIDS   
## 18   
## Uncertain:   
## 7   
## Uncertain:7J   
## 2

# PROVIDE  
 table(provide$DEAD)

##   
## 0 1   
## 155865 404

summary(provide$AGEDTH)

## Min. 1st Qu. Median Mean 3rd Qu. Max. NA's   
## 11.0 194.0 1216.0 804.6 1216.0 1216.0 155865

hist(provide$AGEDTH)

